



Identification of the installation/facility :

Country: Germany
Location (city): Bremen
Name of the facility: Gas-Dynamic Test Facilities (GDTF)
Date of construction or of acquisition or of main refurbishment:
1962, continuously refurbished
Owner: AIRBUS Operations GmbH
Contact point: Klaus Muthreich, Michael Huhnd
Internet site: na

Technical characteristics:

1 - Type of infrastructure

Wind tunnel	<input type="checkbox"/>
Propulsion bench	<input checked="" type="checkbox"/>
Structures facility	<input type="checkbox"/>
Material facility	<input type="checkbox"/>
Simulator (ex. Flight simulator, tower, ...)	<input type="checkbox"/>
Flight test bed (aircraft, embedded facilities, ...)	<input type="checkbox"/>
Supercomputers	<input type="checkbox"/>
Other	<input checked="" type="checkbox"/>

2 - Main technical characteristics

Free jet wind tunnel:	Max. velocity 50 m/s, nozzle size 1m x 1.6m Up to Max. Mach 0.5, 200mm diameter (depending on speed between 200 up to 500mm diameter)
TPS Engine calibration facility:	Max. engine simulator size 7", 2 component force balance: X = 1000N Z = 100N
Air suction capability:	4.6 kg/s continuously (at 500mbar)
Pressurized air capability:	Air storage: 380m ³ at 60bars
Others:	Air control systems for small and large amount of mass flow, heating systems, nozzle test bench, probe calibration facility, different measurement techniques, motor and acceptance test benches for different applications

3 - Research domains which can be addressed (refer to ACARE taxonomy <http://www.acare4europe.com/docs/ASD-Annex-final-211004-out-asd.pdf>)

4 - Main (or specific) associated measurement techniques

Engine simulation (Turbine Propulsion Simulators) capability and other air motors;
force -& surface pressure measurements, wake flow investigations via more hole
probes/rakes, unsteady measurements, and laser based techniques like LDA & PIV,
test of air systems

5 - Operational status

- Fully operational (hours available in 2010) fully operating over the year



6 - picture



Financial elements:

Replacement cost (M€uros)

- | | |
|---------------|-------------------------------------|
| Less than 10 | <input type="checkbox"/> |
| 10 to 30 | <input checked="" type="checkbox"/> |
| 30 to 60 | <input type="checkbox"/> |
| 60 to 100 | <input type="checkbox"/> |
| More than 100 | <input type="checkbox"/> |

Practices concerning:

Access policy (contract, voucher, free access for research, etc...) to be contacted

Support (regional, national, European, private, ...) Company owned facility, open for external customers

Comments:

Origin of information ('signature'): author and date

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